

Notice of Allowability

Application No.

09/447,378

Examiner

Mike Qi

Applicant(s)

NISHIKAWA ET AL.

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response of Apr. 21, 2005.
2. ☒ The allowed claim(s) is/are 1-5, 10, 11, 15-17, 19, 20, 24 and 39.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 7/25/2002.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>4/21/05.</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-5,10-11,15-17,19-20,24 and 39 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The prior art of record neither discloses nor teaches a liquid crystal display device comprising various elements, more specifically, as the following:

light-shielding film is disposed to overlap with boundaries of the orientation direction of the liquid crystal formed by the orientation divider, and the light-shielding film overlapping the orientation divider along the extension direction of the orientation divider as shown in Fig.4 [claims 1,11,15 and 20];

the drain signal lines are disposed to overlap the orientation control window's extension region along the longitudinal direction of the extension region as shown in Fig.4 [claim 24];

a light-shielding film is disposed to overlap the orientation divider along the extension direction of the orientation divider as shown in Fig.4 [claim 39].

The cited references in the information disclosure statement filed on Apr.21, 2005 do not disclose that the light-shielding film is disposed to overlap the orientation divider along the extension direction of the orientation divider. Such as the reference JP 8-136931 shows the light shielding film overlapping a boundary part of pixel region, and other references show that using orientation film to form orientation sections so as to enlarge the viewing angle. Therefore, the references do not render obviousness for this application.

The closest references AAPA, US 6,097,466 (Koma) and US 6,157,428 disclose a structure of a liquid crystal using alignment control window to divide the orientation direction in a pixel electrode region so as to enlarge the viewing angle display, but the prior art of record do not disclose the arrangement for the alignment control window in which the drain signal lines functions as a light-shielding film is disposed to overlap the orientation divider along the extension direction of the orientation divider as shown in Fig.4 so as to increase the contrast ratio. The other reference such as US 6,456,352 (Matsuyama et al) discloses that using control electrode as an orientation control electrode surrounds the periphery of the pixel electrode, but the structure is different from the orientation divider of this application. Most close references found have a common assignee or same inventor having different claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Qi whose telephone number is (571) 272-2299. The examiner can normally be reached on M-T 8:00 am-5:00 pm.

Art Unit: 2871

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Qi
June 10, 2005



DUNG T. NGUYEN
PRIMARY EXAMINER